

STREAM BUFFER ZONE FREQUENTLY ASKED QUESTIONS

Does DNR allow excess spoil fills to be constructed overtop of intermittent or perennial streams?

Answer: Kentucky stream buffer zone regulations read as follows at 405 KAR 16:060 Section 11 and 405 KAR 18:060 Section 11:

Section 11. Stream buffer zones.

- (1) *No land within 100 feet of an intermittent or perennial stream shall be disturbed by surface mining activities unless the Cabinet specifically authorizes surface mining activities closer to, or through, such a stream. The Cabinet may authorize such activities only upon finding, as a result of evaluating a permit application, that:*
 - (a) *Surface mining activities will not cause or contribute to the violation of applicable State or Federal water quality standards;*
 - (b) *Surface mining activities will not cause significant detrimental effects on the water quantity or quality of the intermittent or perennial stream; provided however, this paragraph shall not apply to any reach of that stream that is upstream of an impounding structure located within the permit area and within the stream channel;*
 - (c) *Surface mining activities will not cause significant detrimental effects on other valuable environmental resources, as determined by the Cabinet, of the stream; and*
 - (d) *If there will be a temporary or permanent stream-channel diversion, it will comply with 405 KAR 16:080.*
- (2) *The area that is not to be disturbed shall be designated a buffer zone, shall be adequately shown in the permit application, and shall be marked by the permittee, as specified in 405 KAR 16:030.*
- (3) *Descriptions, drawings, data, and all other information required by the Cabinet to make the findings of subsection (1) of this section shall be submitted in a permit application in a manner prescribed by the Cabinet.*
- (4)(a) *The provisions of the amendments to this section shall apply to all surface mining activities, except as provided in paragraph (b) of this subsection.*
- (b)1. *Surface mining activities included in a permit issued on or before August 17, 1987 shall be subject to the provisions that preceded the amendments to this section in lieu of the provisions of subsections (1) through (3) of this section.*
2. *Surface mining activities included in a permit application determined to be complete pursuant to 405 KAR 8:010, Section 13(1) on or before August 17, 1987 shall be subject to the provisions that preceded the amendments to this section in lieu of the provisions of subsections (1) through (3) of this section.*

This regulation was promulgated by Kentucky on July 2, 1987, and approved by OSM on December 31, 1987 (52 FR 49398).

The provision in Section 1(b) contains a limitation that surface mining activities will not cause significant detrimental effects on the water quantity or quality of intermittent or perennial streams; provided, however, this paragraph shall not apply to any reach of that stream that is upstream of an impounding structure located within the permit area and within the stream channel.

Read individually, this regulation could provide a fairly broad basis for a variance from the stream buffer zone regulations. However, Section 1(b) must be viewed in conjunction with Section 1(c), which states that the surface mining activity will not cause significant detrimental effects on other valuable environmental resources of the stream as determined by the Cabinet.

Therefore, the limitation in Section 1(b) only applies to sedimentation ponds and those channels leading to the sedimentation ponds, as discussed in Kentucky's July 10, 1987, response to an earlier issue letter from OSM. In that letter, Kentucky stated that Section 11(1)(c) precludes the Cabinet from approving a variance from the 100-foot stream buffer zone unless it is determined that the activities "will not cause significant detrimental effects on other valuable environmental resources..." Also in that July 10, 1987, letter, Kentucky states that the term "other valuable environmental resources" would be developed in their fish and wildlife resources regulations. Although the fish and wildlife regulations were not promulgated until 1992, the Cabinet did address that issue in the fish and wildlife regulations. In that regulation, "valuable environmental resources" is defined as listed or proposed threatened or endangered species and their critical habitats, and habitats of unusually high value for fish and wildlife. OSM does agree to the intent of the limitation in Section (1)(b) to apply to fills located in streams.

Furthermore, in the Kentucky regulations, it is stipulated that where fills will intercept intermittent or perennial flow, that the flow be directed around the spoil disposal area. Thus spoil is not actually placed on flowing waters (streams). There is a clause in those same regulations that goes on to say activities will not cause detrimental effects to water quality or high value areas. Those areas are discovered during preliminary review of the application. When such areas are found, such as Exceptional Waters or Special Use Water as designated by Kentucky Department of Environmental Protection (DEP), the mining company is subject to additional restrictions enforced by DEP and DNR. DNR determines the extent of the encroachment in the SBZ in these high value areas.

What criteria does DNR use to delineate intermittent/perennial streams? Do they have an established protocol in this regard?

Answer: According to the Kentucky surface mining regulations:

405 KAR 16:001 (52) “intermittent stream” means:

(a) A stream or reach of stream that drains a watershed of one (1) square mile or more but does not flow continuously during the calendar year; or a

(b) A stream or reach of stream that is below the local water table for at least some part of the year, and obtains its flow from both surface runoff and ground water discharge.

405 KAR 16:001 (71) “perennial stream” means a stream or that part of the stream that flows continuously during all of the calendar year as a result of ground-water discharge or surface runoff. The term does not include “intermittent stream” or “ephemeral stream.”

Using USGS 7.5 quad maps and Arc-View as initial guidelines, staff biologists ground truth stream flow characteristics in areas where fills and ponds are to be constructed. They utilize biological indicators and channel characteristics to help identify stream types. This information is then provided to the technical permit reviewer.

Does DNR prohibit the incursion of any specific mining activities within SBZ?

Answer: There is no prohibition of a specific mining activity within the SBZ. However, when review of the application indicates that there are Special Use Waters as designated by DEP that could be impacted, the applicant is restricted from entering into the SBZ.

Does DNR encourage coal operations to “avoid” and “minimize” such SBZ incursions?

Answer: Yes, the permit review staff adheres to the “avoidance and minimization” intent of the regulations. Through daily contact with engineers, review staff, and company representatives, permit reviewers encourage the placement of fill material and location of ponds to be out of streams and placed as far upslope as possible. Permit review staff encourage the use of on-bench ponds wherever possible, further eliminating encroachments in the SBZ. No in-stream impacts are allowed in streams designated as Special Use Waters by DEP.

Does DNR have a written policy for administering the SBZ requirements?

Answer: The requirements to maintain a 100' stream buffer zone are clearly written in the regulations at 405 KAR 16:060. When a SBZ variance is required, the applicant must provide justification for the request. Guidance for review is provided in an internal procedures manual and is enhanced through in-house training with technical and biological review personnel.

Does DNR require coal companies to mitigate the effects of permanent / temporary disruptions within the SBZ? Do you or the State(s) require specific restoration measures?

Answer: DNR does require restoration of streams and the associated riparian zone where ponds are to be removed, streams are mined through, or some other activity occurs in these areas. DNR also asks for contingent stream restoration plans for the area of stream between the toe of the fill and the pond. Biological staff reviews these plans, and once approved, they are forwarded to the technical reviewer for inclusion in the permit application. Under DNR authority, if an individual water quality certification Clean Water Act (CWA) Section 401 is required, then coal companies are required to mitigate for permanent and temporary impacts to waters of the United States. In the eastern Kentucky coal fields, the Eastern Kentucky Stream Assessment protocol is applied to determine mitigation requirements and credits. In western Kentucky, mitigation is developed that will ensure that there is adequate replacement of stream functions and values lost to "disruption". DEP-DOW has a draft stream mitigation manual for guidance in development of mitigation plans. DNR biological staff refers to this document and other technical publications when reviewing stream restoration plans.

Does DNR provide written findings in the permit file when an SBZ waiver is granted? If so, do the waivers document the rationale for granting the waiver?

Answer: The rationale and justification for the SBZ variance is a required element of the permit application. DNR's affirmative findings document contains the written findings on stream buffer zones. The specific stream buffer zone variance, if granted, appears on the issued permit face.

Does DNR deny an applicant's request for a stream buffer zone waiver?

Answer: In those instances where Special Use or Exceptional Waters are proposed to be encroached upon, DNR relies on DEP for guidance. DNR requires applicants to fulfill DEP requirements. Applicants have withdrawn stream buffer zone variance requests or modified permit boundaries to obtain approvals through DNR.

How does DNR ensure that the proposed operation will meet the conditions of granting a stream buffer zone waiver? What thresholds does DNR use to determine whether or not to grant a waiver on the basis of these factors?

Answer: The conditions for granting a waiver corresponds to the completion of the appropriate permit items, including stream restoration/pond removal plans, pond compliance demonstrations and probable hydrologic consequences (PHC) information. Compliance with the conditions of the issued permit is conducted through monthly inspections.

As of February 1, 2007, the annual number of new permits issued that contain buffer zone variances in relation to the number of new permits issued are provided below.

Year	No. New Permit Applications	No. New Permits Issued with Buffer Zone Variances	% of New Permits Issued with Buffer Zone Variances
2004	85	41	48.2
2005	89	48	53.9
2006	93	55	59.1
2007	13	7	53.8